

Bellwork: 12/4/12

Factor each expression:

1) $6x^2y^2 - 9xy^2 + 18x^2y$ 2) $-12x^3 + 8x^2 - 4x$

$3xy(2xy - 3y + 6x)$ $4x(-3x^2 + 2x - 1)$

Factoring regular quadratic expressions with a=1

1) $x^2 + 7x + 10$ add multiply

$(x+5)(x+2)$
or
 $(x+2)(x+5)$

check:

$x^2 + 5x + 2x + 10$

$x^2 + 7x + 10$ ✓

2) $x^2 - 5x + 4$

$(x-1)(x-4)$

check:

$x^2 - 4x - 1x + 4$

$x^2 - 5x + 4$ ✓

$$3) x^2 - 4x - 12$$

$$(x+2)(x-6)$$

$$4) x^2 + 13x - 48$$

$$(x+16)(x-3)$$

	48
1	48
2	24
-3	16
4	12
6	8

$$5) x^2 - 9x - 36$$

~~$$(x-12)(x+3)$$~~

$$(x-12)(x+3)$$

$$6) x^2 + 22x + 72$$

$$(x+18)(x+4)$$

	72
1	72
2	36
3	24
4	18
6	12
8	9

Factoring regular quadratic expressions with a GCF:

7) $-x^2 + 13x - 12$

$-1(x^2 - 13x + 12)$

$-1(x-1)(x-12)$

$x^2 - 12x - 1x + 12$
 $-1(x^2 - 13x + 12)$

$-x^2 + 13x - 12$



8) $-x^2 - 9x - 20$

$-1(x^2 + 9x + 20)$

$-1(x+4)(x+5)$

9) $2x^2 - 22x + 60$

$2(x^2 - 11x + 30)$

$2(x-5)(x-6)$

10) $-2x^2 + 28x + 64$

$-2(x^2 - 14x - 32)$

$-2(x-16)(x+2)$

Homework: pg 221 #14-31 all